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ABSTRACT

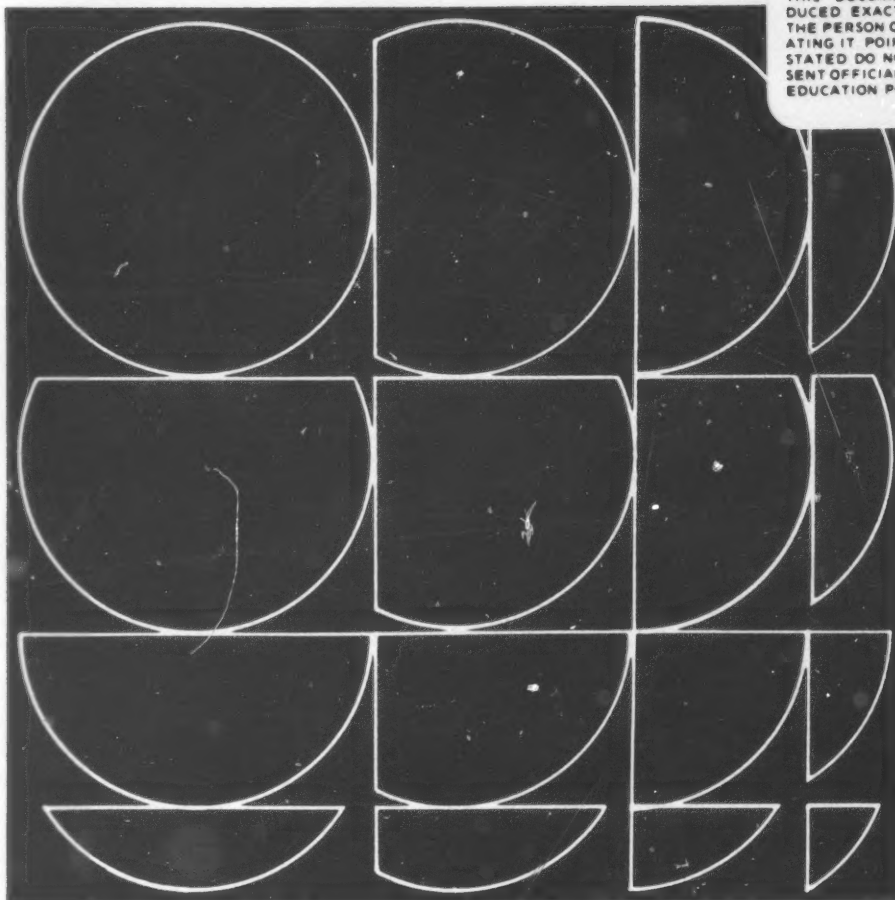
To operationalize the Technical Assistance Brokerage System, the first major task called for the development of a taxonomy of training and technical assistance services specifying requisite skills and skill clusters by the dimensions of client type, stages of dissemination, and levels of experience. From a literature search approximately 400 linkage skills were extracted. In addition, certain commonalities were evident, related to skill clusters, personal attributes, and cognitive understandings. A second strategy used to identify skills pertinent to the primary target audience was to conduct telephone interviews with a select group of 14 state facilitators and developer/demonstrators. From the interviews, approximately 200 skills were obtained. As a result of a synthesis of literature and interview findings, similar skills or duplicated skills were eliminated yielding a final listing of all skills. These skill clusters and specific skills were partitioned according to client type, stage of dissemination, and level of experience. The resultant taxonomy is displayed graphically. (Author/MLP)

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A TAXONOMY OF TECHNICAL ASSISTANCE SKILLS

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October, 1977

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INTRODUCTION

To operationalize the Technical Assistance Brokerage System, the first major task delineated in RFP 77-83 called for the development of a taxonomy of training and technical assistance services specifying requisite skills and skill clusters by the following dimensions:

Client Type
Stages of Dissemination
Levels of Experience

The selection of the three dimensions reflected the recognition that a dissemination agent might need to receive a different set of knowledge and technical skills at different junctures of the change process. In addition, the skills might vary according to the agent's level of sophistication or experience (i.e., as the focus of the project changed from startup to procedures for maintaining the project over time).

As presented in the Contractor's Technical Proposal, the elements of the dimensions were defined as follows:

CLIENT TYPE¹

- Developer/Demonstrator (D/D) -- a JDRP approved project funded for dissemination.
- State Facilitator (SF) -- an agency funded to link the Developer/Demonstrator projects to potential adopters.

STAGES OF DISSEMINATION²

- Spread -- the one-way casting out of information, products, ideas, and materials.
- Exchange -- the two-way or multi-way flow of information, products, ideas, and materials responding to the needs and problems of local education agencies and containing partial solutions.
- Choice -- facilitating rational consideration and selection from among the outcomes of research, development, effective practice, and other knowledge that can be used by the local education agency for the improvement of education.

-
1. The Taxonomy presented in this document will include only the skills of D/Ds and SFs. It is the Contractor's feeling that the skill derived for the primary clients (SFs and D/Ds) will be relevant also to the needs of the broader universe of others. However, since the brokerage system will be reactive as well as proactive, other skills appropriate to either the primary clients or the broader universe of others will be included as the system evolves.
 2. Dissemination Analysis Group. Report of the Dissemination Analysis Group to the Dissemination Policy Council. Washington, D.C.: HEW, Office of the Assistant Secretary of Education, 1976.

- Implementation -- facilitating adoption, adaptation, installation, and sustenance of educational improvements.

LEVELS OF EXPERIENCE

- Start-up -- new SF or D/D.
- Continuing -- second or third year SF or D/D.
- Maintenance -- three years or more as an SF or D/D.

Having specified the dimensions of the matrix or taxonomy, the Contractor employed two strategies to "fill-in" the cells: (1) a literature search and (2) interviews with experienced SFs and D/Ds. These two strategies are discussed below.

Literature Search

Several hundred documents including case studies, empirical studies, and analytical papers were reviewed in an effort to identify linking skills and skill clusters appropriate to the functions of the primary client groups, D/Ds and SFs. Unfortunately, pertinent information was located in only a handful of the documents.

Certain authors (Crandall, 1977; Hall and Alford, 1976; Sieber, 1974) have attributed the scarcity of information to the difficulty in defining the nature of the linkage role. As Hall and Alford (1976) have pointed out, "broadly conceived, the linker role entails the communication between the innovation and adoption stages of the diffusion process." These authors further maintain that because linkage may be performed by a group of individuals whose main function is elsewhere (i.e., in teaching or research, etc.), the linkage role tends to be overlooked by both the performer and the investigator. Whatever the reason, gaps in published knowledge with regard to linker skills do exist.

For the present endeavor then, the most useful information was obtained from the literature sources listed in Appendix A.

From these sources, approximately 400 linkage skills were extracted. Not surprisingly, there was a great degree of overlap in these skills. In addition, certain commonalities were evident related to skill clusters, personal attributes, and cognitive understandings. The most frequently mentioned linkage agent skill clusters or functions were:

- a. Problem-solving or diagnostic skills
- b. Resource acquisition and utilization skills
- c. Management and organizational skills
- d. Communication skills
- e. Implementation skills
- f. Evaluation/documentation skills
- g. Marketing skills
- h. Interpersonal relationship skills

Similarly, the most frequently listed personal attributes for linkage agents included:

- a. Appreciation for diverse ideas and perspectives
- b. Motivation to acquire new ideas
- c. Tolerance for ambiguity
- d. Favorable self-concept and low ego needs
- e. Positive view toward risk
- f. Flexibility
- g. Integrity
- h. Independence
- i. Sense of humor
- j. Orderliness
- k. Candid and straightforward

Finally, cognitive understandings considered important for a linking agent were:

- a. History of dissemination and educational program improvement
- b. Federal and state programs concerned with the topics
- c. Literature on planned change, behavioral science, and curriculum theory
- d. Access to sources of programs, products, and information
- e. Educational and organizational goal setting
- f. Organizational development and health
- g. Tactics of boundary spanning
- h. Information science concepts
- i. Evaluation
- j. Major issues in education

Interviews

A second strategy used by the Contractor to identify skills pertinent to the primary target audience was to conduct interviews with a select group of SFs and D/Ds. Accordingly, the Contractor interviewed 14 individuals (7 D/Ds and SFs) by phone. These individuals were selected based upon the following criteria:

- a. Nominations from USOE personnel and from the NDN
- b. Number of years experience in dissemination
- c. Number of quality adoptions
- d. Geographic spread
- e. Type of project

The 14 SFs and D/Ds were asked to name the skills they felt were important according to each stage of dissemination (i.e., spread, exchange, choice, and implementation) and level of experience.

From the interviews, approximately 200 skills were obtained. As was the case with the literature search, there tended to be agreement within and across roles regarding requisite technical skills. Additionally, both SFs and D/Ds pointed to the importance of the following personal attributes:

- a. Being candid and straightforward
- b. Having a tolerance for ambiguity
- c. Ability to cope with frustrations

- d. Being concerned and supportive
- e. Triggering enthusiasm without going overboard
- f. Being tolerant of different viewpoints
- g. Being flexible

as well as cognitive understandings:

- a. Understanding the process of change
- b. Being familiar with educational resources
- c. Understanding educational priorities

Synthesis of Literature and Interviews

A draft copy of the Skills Taxonomy Matrix was the result of a synthesis of literature and interview findings. In integrating the data, several steps were followed:

1. Similar skills or duplicated skills were eliminated yielding a final listing of 111 skills.
2. The individual skills were then categorized according to the following skills clusters:

Communication/Interpersonal Relationships
Public Relations/Marketing
Planning/Organization
Evaluation/Documentation
Problem Solving/Diagnosis
Resource Acquisition/Utilization
Management/Implementation

3. These skill clusters and specific skills were finally partitioned according to client type, stage of dissemination, and level of experience. It should be noted that both the literature search and interview results indicated an additional list of skills which could not be directly related to the stages of dissemination. The Contractor therefore added an additional element to the stages: Project Management. The skills subsumed under this element are those required for "gearing-up" and/or maintaining a program.

General Model

The general models are presented in Figures #1 and 2.

Interim Taxonomy

A draft of the taxonomy was shared with the participants at a joint USOE/NIE Dissemination Conference held November 2-4 at the Belmont Conference Center. Both individual and group inputs were obtained concerning the proposed taxonomy. (See Appendix B for list of participants.) The revised version of the Skills Taxonomy appears on Pages 9-17. The taxonomy will be used as the basis for the Needs Assessment and Human Research Identification instruments which are required under the contract.

Final Revision of Taxonomy

Based on the responses to the Needs Assessment and Human Resources Identification and the analysis of actual requests for technical assistance received, the taxonomy will be reviewed in terms of specific skills and its general dimensions. Based on this review, it is anticipated that certain areas will be revised and others validated, thus producing an improved document.

Figure #1
General D/D Model

Skill Clusters

Stages	Levels	Skill Clusters							
	Maintenance	Communications/ Interpersonal Skills	Public Relations/ Marketing Skills	Organization/ Planning Skills	Evaluation/ Documentation Skills	Problem Solving/ Diagnostic Skills	Resource Acquisition/ Utilization Skills	Implementation/ Management Skills	
	Continuing								
	Start-up								
8	Spread								
	Exchange								
	Choice								
	Implement- ation								
	Project Mgmt.								

Figure #2
General SF Model

		Skill Clusters							
Levels	Maintenance	Communications / Interpersonal Skills	Public Relations / Marketing Skills	Organization / Planning Skills	Evaluation / Documentation Skills	Problem Solving / Diagnostic Skills	Resource Acquisition / Utilization Skills	Implementation / Management Skills	
	Continuing								
	Start-up								
Stages	Spread								
	Exchange								
	Choice								
	Implement- ation								
	Project Mgmt.								

SKILL TAXONOMY

STAGES OF DISSEMINATION					PROJECT TYPE		LEVELS OF EXPERIENCE			SKILLS
Spread	Exchange	Choice	Implementation	Project Managemt.	D/D	SF	Start-up	Continuing	Maintenance	
I. <u>Communication/Interpersonal Relationships</u>										
x					x	x	x	x	x	A. Synthesizing and summarizing complex material
	x				x	x	x	x	x	B. Writing letters/memos
	x				x	x	x	x	x	C. Using the telephone for ongoing communications
	x	x	x		x	x	x	x	x	D. Developing two-way communication channels
	x	x			x	x	x	x	x	E. Handling communication breakdowns (diagnosis and resolution)
	x	x			x	x	x			F. Developing oral presentation skills (making the case and defining the project's role)
x	x	x	x		x	x	x	x	x	G. Analyzing audiences (communicating with different audiences)
		x			x	x	x	x	x	H. Facilitating group interactions
		x			x		x			I. Demonstrating materials
		x	x		x	x	x	x	x	J. Organizing and conducting observations (selective listening)
		x			x	x	x	x	x	K. Using persuasion
				x	x	x	x	x	x	L. Coping with conflict (dealing with colleagues)
	x				x	x	x	x	x	M. Preparing written material for selected target audiences (e.g., parents, teachers, administrators, legislators)
				x	x	x	x	x	x	N. Communicating with other "linkers" through meetings, conferences, mail, and telephone
	x				x	x	x	x	x	O. Communicating responses (feedback, delivery, and timing)

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STAGES OF DISSEMINATION					PROJECT TYPE		LEVELS OF EXPERIENCE			SKILLS
Spread	Exchange	Choice	Implementation	Project Managemt.	D/D	SF	Start-up	Continuing	Maintenance	
x				x	x	x	x	x	x	I. <u>Communication/Interpersonal Relationships</u> (continued) P. Organizing information needs Q. Using the media R. Updating and modifying materials based on experien
x					x	x	x	x	x	
					x			x	x	

STAGES OF DISSEMINATION					PROJECT TYPE		LEVELS OF EXPERIENCE			SKILLS
Spread	Exchange	Choice	Implementation	Project Managemt.	D/D	SF	Start-up	Continuing	Maintenance	
x					x	x	x			II. <u>Public Relations/Marketing</u> A. Devising nationwide publicity strategies B. Publicizing activities and results in client districts C. Identifying and informing "significant others" in decision-making positions D. Developing and updating mailing lists E. Packaging materials for different audiences F. Preparing audio-visual presentations G. Achieving visibility H. Using brochures and newsletters effectively I. Developing tactics of boundary spanning J. Analyzing and using incentives
x					x	x		x	x	
	x				x	x		x	x	
x					x	x	x	x	x	
x					x	x	x	x	x	
	x	x			x	x	x			
x					x	x	x			
x					x	x	x	x	x	
	x	x	x	x	x	x	x	x	x	
x	x	x	x	x	x	x	x	x	x	

STAGES OF DISSEMINATION					PROJECT TYPE		LEVELS OF EXPERIENCE			SKILLS
Spread	Exchange	Choice	Implementation	Project Managemt.	D/D	SF	Start-up	Continuing	Maintenance	
		x			x	x	x			III. <u>Organization/Planning</u> A. Arranging and organizing workshops B. Targeting information to maximize gains C. Arranging site visits D. Managing the delivery of resources and services E. Implementing a program in an adopting district F. Setting goals and objectives and developing work plans G. Establishing priorities for activities H. Setting priorities for client needs I. Operationalizing the project J. Modifying the program plan K. Charting activities (flows, PERTs, and Ganttts) L. Developing contracts for adoptions M. Adapting the project to meet local needs N. Developing a general project approach to dissemination tasks O. Arranging ongoing assistance to adopter sites P. Analyzing the organization of the client system
			x		x	x	x	x	x	
		x	x		x	x	x	x	x	
				x	x	x	x	x	x	
			x		x	x		x	x	
				x	x	x	x	x	x	
				x	x	x	x	x	x	
		x	x		x	x	x	x	x	
			x		x	x	x			
				x	x	x		x	x	
				x	x	x	x			
			x		x	x		x	x	
				x	x	x	x			
			x		x	x		x	x	
x	x	x	x	x	x	x	x	x	x	

STAGES OF DISSEMINATION					PROJECT TYPE		LEVELS OF EXPERIENCE			SKILLS
Spread	Exchange	Choice	Implementation	Project Managemt.	D/D	SF	Start-up	Continuing	Maintenance	
		x			x	x	x	x	x	IV. <u>Evaluation/Documentation</u> A. Measuring the effectiveness of a workshop and presentation B. Determining the relative merits of different programs C. Preparing project evaluation designs D. Assisting school districts in monitoring program effectiveness E. Monitoring adoption sites F. Evaluating second generation trainers G. Preparing an adoption case history H. Obtaining and using longitudinal data I. Preparing and communicating statistical data J. Standardizing recording procedures K. Validating adoption sites that will serve as D/Ds L. Implementing evaluation designs M. Using evaluation data to modify programs, strategies, materials, and subsequent evaluations N. Identifying exemplary adoptions O. Assisting the client to build a capacity for evaluation
				x		x	x	x	x	
				x	x	x	x	x	x	
			x		x	x		x	x	
			x		x	x		x	x	
				x	x	x		x	x	
				x	x	x		x	x	
				x	x	x				
				x	x	x	x	x	x	
				x	x	x		x	x	
				x	x	x				
				x	x	x		x	x	
				x	x	x		x	x	
				x	x			x	x	
			x		x	x		x	x	

STAGES OF DISSEMINATION					PROJECT TYPE		LEVELS OF EXPERIENCE			SKILLS
Spread	Exchange	Choice	Implementation	Project Managemt.	D/D	SF	Start-up	Continuing	Maintenance	
VI. <u>Resource Acquisition/Utilization</u>										
x	x	x		x	x	x	x	x	x	A. Contacting out-of-state agencies
				x	x	x	x	x	x	B. Contacting experts for additional information
		x		x	x	x	x			C. Acquiring information regarding concepts, curriculum, and research
			x	x	x	x	x	x	x	D. Obtaining information on rules, policies, and procedures at the local, state, and federal levels
		x		x	x	x	x	x	x	E. Discovering alternative funding sources
		x		x	x	x	x	x	x	F. Identifying and accessing related sources of support (universities, funding institutions, resource service centers, regional labs, private consultants, teacher organizations, administrator organizations, and professional groups)
				x	x		x	x	x	G. Working with State Facilitators
				x		x	x	x	x	H. Working with Developer/Demonstrators
				x	x		x	x	x	I. Identifying related commercial and non-commercial educational materials
				x	x	x	x	x	x	J. Understanding the conceptual framework of dissemination
x	x	x	x		x	x	x	x	x	K. Knowing the literature of planned change

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STAGES OF DISSEMINATION					PROJECT TYPE		LEVELS OF EXPERIENCE			SKILLS
Spread	Exchange	Choice	Implementation	Project Managemt.	D/D	SF	Start-up	Continuing	Maintenance	
										VII. <u>Management/Implementation</u>
				x	x	x	x			A. Understanding the historical context of NDN
				x	x	x	x			B. Understanding the political context of NDN and its relationship to other dissemination networks and projects
				x	x	x	x	x	x	C. Creating a psychological support system for project staff and client staff
				x	x	x	x	x	x	D. Maintaining relationships with key agencies and resource centers
				x	x	x	x	x	x	E. Organizational development and maintenance
				x	x	x	x	x	x	F. Being aware of federal and state statutes and guidelines related to programs
				x	x	x	x	x	x	G. Sensing and monitoring local, state, and federal priorities
				x	x	x	x			H. Using techniques for cash flow (collection and payment procedures)
				x	x	x	x			I. Understanding different budgeting methods (zero-based, cost accounting, PPBS)
				x	x	x	x			J. Being familiar with project accounting and state and federal audit procedures
				x	x	x		x	x	K. Knowing how to use grant-related income
				x	x	x	x	x	x	L. Understanding copyright laws affecting the project
				x	x	x	x	x	x	M. Writing and analyzing contracts
				x	x			x	x	N. Setting up a consortium of adopters
				x	x	x	x			O. Establishing filing and record keeping systems

STAGES OF DISSEMINATION					PROJECT TYPE		LEVELS OF EXPERIENCE			SKILLS
Spread	Exchange	Choice	Implementation	Project Managemt.	D/D	SF	Start-up	Continuing	Maintenance	
VII. <u>Management/Implementation</u> (continued)										
				x	x	x		x	x	P. Identifying ¹¹ and training turn-key trainers
				x	x	x		x	x	Q. Establishing turn-key demonstration sites
				x	x	x	x	x	x	R. Managing time and money
			x		x	x		x	x	S. Managing change in large districts
				x	x	x	x			T. Establishing an advisory council
				x	x		x			U. Changing the project perspective from local to national
				x	x	x		x	x	V. Selecting and training personnel
			x			x		x	x	W. Developing client proposal-writing skills
			x					x	x	X. Using parental and community input
				x		x	x	x	x	Y. Writing and utilizing reports
x	x	x	x	x	x	x	x	x	x	Z. Developing interpersonal skills in oneself and others

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APPENDIX A

SELECTED LITERATURE REVIEWED IN DEVELOPING
THE SKILLS TAXONOMY

- Baldrige, J. V. Managing change in educational organization. Berkeley, California: McCutchan, 1975.
- Bennis, W. G. and Schein, E. H. Principles and strategies in the use of laboratory training for improving social systems. In W. G. Bennis, K. D. Bennis, and R. Chin (Eds.), The planning of change (2nd ed.). New York: Holt, Rinehart & Winston, 1969, 335-357.
- Capla Associates. A management training manual for managers of change. Rochelle Park, New Jersey: Capla Associates, 1976.
- Crandall, D. P. Training and supporting linking agents. In N. Nash and J. Culbertson (Eds.), Linking processes in educational improvement. Columbus, Ohio: University Council for Educational Administration, 1977.
- Culbertson, J. A nationwide training system for linking agents in education. In N. Nash and J. Culbertson (Eds.), Linking process in educational improvement. Columbus, Ohio: University Council for Educational Administration, 1977.
- Ferguson, Charles J. Concerning the nature of human systems and the consultant's role. Journal of applied behavioral science, 1968, 4(2), 179-193.
- Hall, D. C. and Alford, S. E. Evaluation of the National Diffusion Network: an overview of the research literature on diffusion of educational innovations. Menlo Park, California: SRI, 1976.
- Havelock, Ronald G. Planning for innovation through dissemination and utilization of knowledge. Ann Arbor, Michigan: Center for Research on Utilization of Scientific Knowledge, Institute for Social Research, University of Michigan, 1969. (Final report, contract No. OEC-3-7-070028-2143, Office of Education, Department of Health, Education, and Welfare.)
- Havelock, Ronald G. A guide to innovation in education. Ann Arbor, Michigan: Center for Research on the Utilization of Scientific Knowledge, Institute for Social Research, University of Michigan, 1970.
- Human Interaction Research Institute. Putting knowledge to use: a distillation of the literature regarding knowledge transfer and change. Los Angeles, California: Human Research Institute, 1976.
- Lippitt, R., Watson, J., and Westley, B. The dynamics of planned change. New York: Harcourt, Brace, 1958.
- Mann, F. C., and Neff, F. W. Managing major change in organizations. Ann Arbor, Michigan: Foundation for Research on Human Behavior, 1961.
- Rogers, E. M., with Shoemaker, F. F. Communication of innovations: a cross-cultural approach. New York: Free Press, 1971.
- Rosenau, F. S. Educational dissemination and linking agent training project. San Francisco, California: Far West Laboratory, 1977.

Schindler-Rainman, E., and Lippitt, R. Team training for community change: concepts, goals, strategies and skills. Riverside, California: University of California Extension, 1972.

Sieber, S., Louis, K., and Metzger, L. The use of educational knowledge: evaluation of the pilot state dissemination program. New York: Columbia University, 1972.

Sieber, S. Trends in diffusion research: knowledge. Viewpoints, 1974, 50, 61-81.

APPEND X B

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